

An Analysis of Climate Action Planning in Canadian Universities and Municipalities

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Manasvini Ram | Supervised by Barbara Murck & Steve Hoffman
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Institute for Management & Innovation
UNIVERSITY OF TORONTO
MISSISSAUGA

Background & Literature Review

- Increased attention to sustainability and climate change has instigated the development of climate change action plans (CCAPs) at numerous institutions, including universities and cities.
- Competition between cities, federal requirements, pressures & expectations from residents are often seen to be the main drivers for the development of CCAPs in cities (Millard-Ball, 2012). Similarly, a number of networks have been formed to urge higher education institutions (HEIs) to publicly commit to issues related to sustainability and climate change (Dyer & Dyer, 2015).
- Trencher et al. (2014) note that HEIs seem to lack internal policies that encourages the formation of partnerships with local stakeholders (such as their city) for climate change related issues.
- This is explained through the concept of institutional isomorphism - which refers to the homogenization of actions that institutions undertake in order to legitimize their membership in a given sector; thereby increasing their chances of survival (Meyer & Rowan, 1977). In the case of universities, *coercive* & *mimetic isomorphism* seem to be the most prominent.
- Coercive isomorphism* refers to the coercion experienced by an institution either from peer institutions or from societal expectations of the role that the institution plays, while *mimetic isomorphism* results when goals and solutions are uncertain (DiMaggio & Powell, 1983).
- Despite both types of institutions having action plans targeting climate change, there is a lack of evidence to show that these institutions are collaborating in developing and achieving their targets.

Research Objectives

Research Question: Are university climate action plans decoupled from the climate action plans of their local municipal government?

Research Objectives: To determine if institutional isomorphism is at play when it comes to the lack of coordination in the development of climate change action plans in Canadian universities and municipalities.

Methodology

- The universities sampled in this study were selected based on their ranking in the 2019 Times Higher Education University Impact Ranking for SDG 13 (climate action).
- Universities were ranked based on their energy usage, their arrangements for handling the effects of climate change, as well as their investments on climate change research.
- Of the 250 global universities that were ranked, the six Canadian universities that were listed were - University of British Columbia (#1), Laval University (#4), University of Waterloo (#6), York University (#14), University of Calgary (#21) & McGill University (#51).
- Qualitative analysis also involved the examination of climate action plans from the respective municipalities that each university belonged to.
- Using the NVivo 12 Plus application, the climate action plans were coded for using the target words from SDG 13 as a guiding framework.

References

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- Millard-Ball, A. (2012). The Limits to Planning: Causal Impacts of City Climate Action Plans. *Journal of Planning Education And Research*, 33(1), 5-19.
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Key Findings

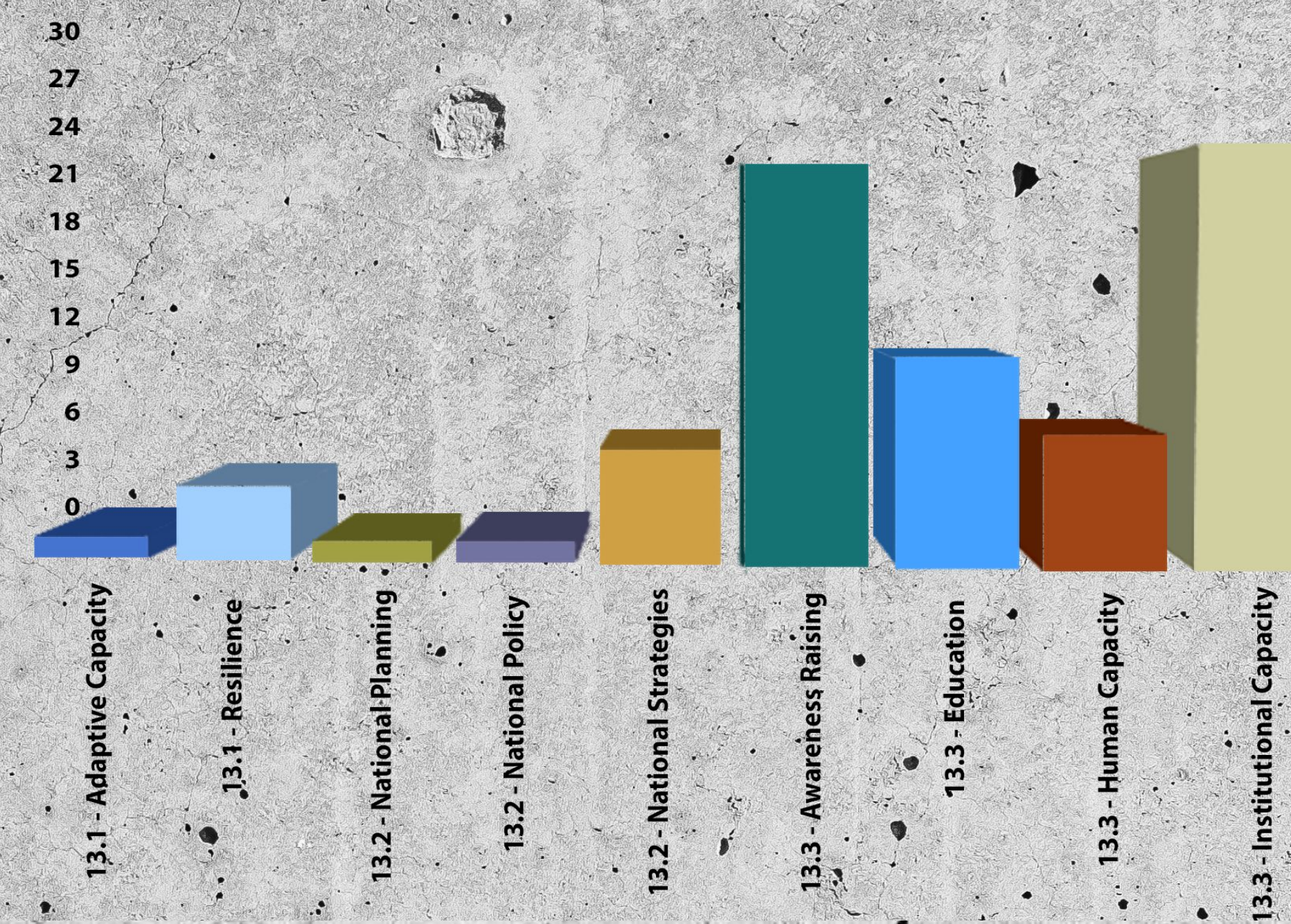


Figure 1: Reference of identified SDG 13 target words in university climate action plans.

- The graph above depicts an aggregate analysis of the SDG 13 coding themes that were analyzed for all the universities.
- Based on the data collected, universities' climate change action plans show that the top three areas of focus are building institutional capacity (22), raising awareness (21), and educating individuals on climate change related topics (11).
- This is then followed by human capacity (7), alignment with national strategies (6) and resilience (4).
- Lastly, adaptive capacity (1) and aligning with national policies (1) and plans (1) do not seem to heavily influence climate change action planning in a university setting.

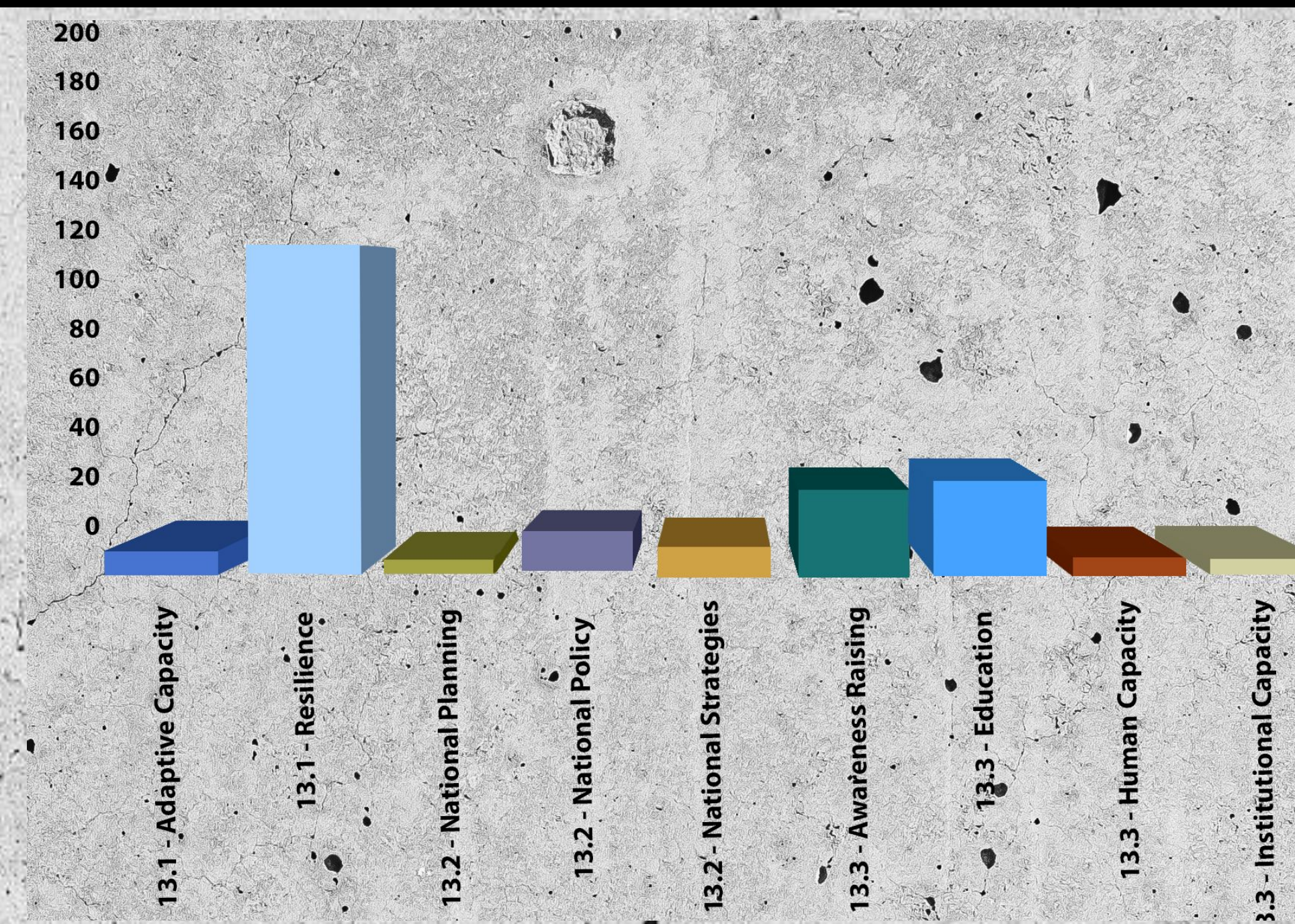


Figure 2: Reference of identified SDG 13 target words in municipal climate action plans.

- The graph above depicts an aggregate analysis of the SDG 13 coding themes that were analyzed for all the municipalities that came out with a climate change action plan.
- Results showed that the top three targets that municipalities seem to be increasingly focused on is building resilience (114), education (33), and raising awareness on climate change (30).
- This is followed by aligning with national policies (14), aligning with national strategies (10), and increasing overall adaptive capacity (8).
- Institutional capacity (6), human capacity (6) and national planning (4), are not as heavily focused in municipal climate action plans.

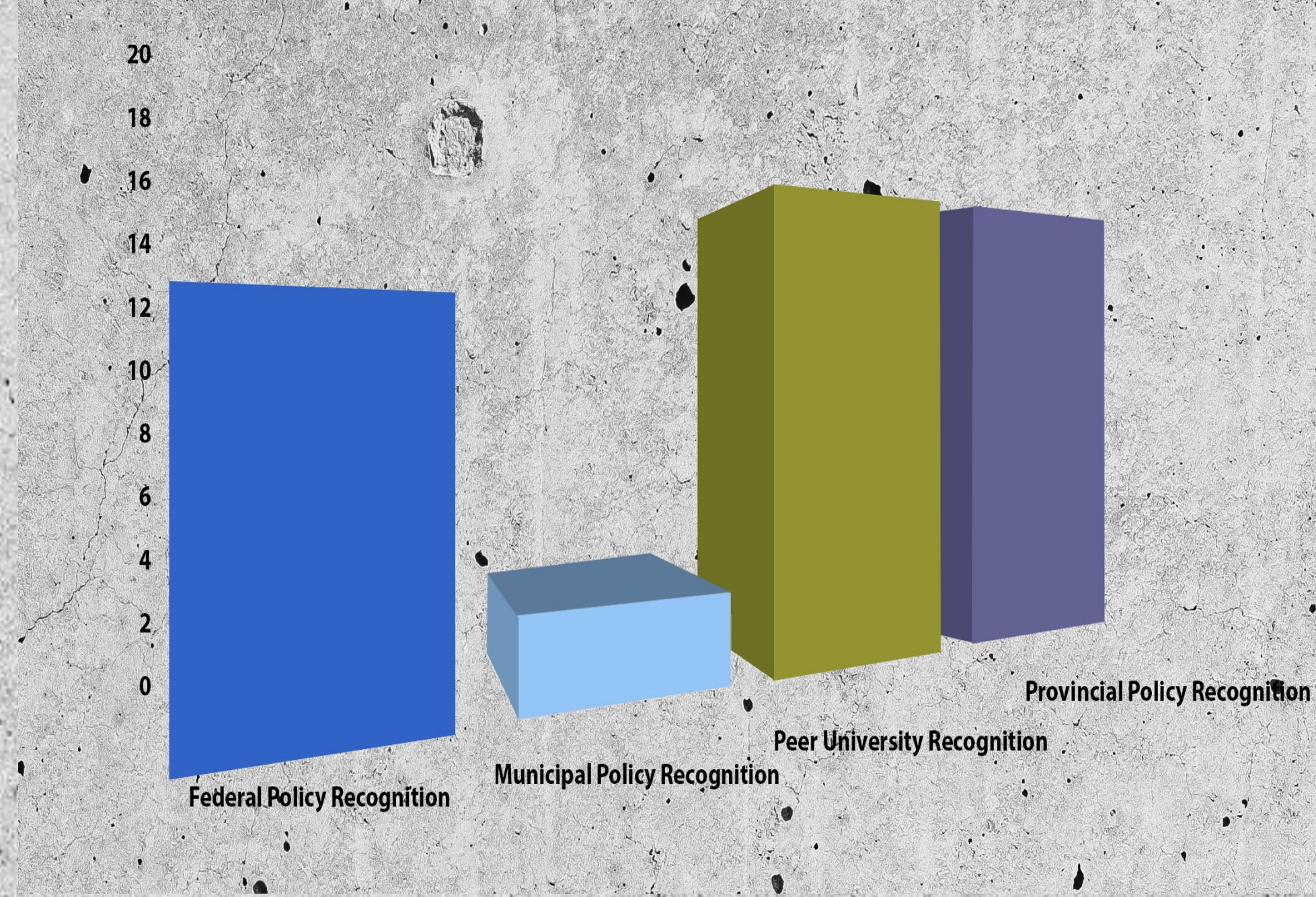


Figure 3: Institutional reference in university climate change action plans.

- The figure above depicts the frequency at which university climate action plans made reference to the climate action plans of either federal, provincial, or municipal governments, or alternatively, to their peer universities.
- Results showed that provincial and peer university's action plans were the most recognized with a total of 16 references each, while federal policies followed closely with 12 references in total.
- On the other hand, universities were not seen to be referencing their local municipality's climate action plan (referenced 3 times in total). This was despite the fact that most cities had come out with an action plan earlier than the universities (with the exception of the City of Vancouver).

Takeaways & Recommendations

- An analysis of the content of the climate action plans showed that municipalities are heavily focused on building resilience, while universities are geared towards building institutional capacity. Interestingly, however, both types of institutions also seem to be focused on targets such as raising awareness and increasing education on climate change related topics (it is important to note that, although the universities seem to have awareness raising as their priority, the frequency at which it was referenced was still less than what the municipal climate action plans mention: 21 times in university plans versus 30 times in municipal plans).
- Although cities were seen to have developed their climate action plans much before the universities', there was no evidence to show that universities were consulting or using the municipality's climate action plan as a guiding framework when developing their own goals and targets.
- As the literature notes, universities are (perhaps unknowingly) seen to exhibit mimetic isomorphism. Therefore, collaboration between top ranking universities and their cities in the development of integrated climate action plans could potentially have a domino effect on their peer institutions.
- Collaboration can ideally position institutions to offer and share resources in the development of new technology for mitigating & adapting to climate change, shared facility spaces for education and awareness raising, etc.
- Higher educational institutions have the ability to foster a sustainable mindset in future generations by generating and co-designing goods and services with their local municipalities. This helps free up resources at each organization which can then be reallocated towards attaining various other targets; thereby increasing the chances of achieving these targets.
- Cross collaboration and consultation between universities and their cities can help both institutions prioritize the most imminent changes that are required in their relevant communities. For instance, universities might be better equipped at raising awareness & educating the community, while cities might be better equipped at aiding universities in their efforts to build institutional capacity (for example, through funding for retrofits, etc.).
- Additionally, both types of institutions should also consider following a common framework when building their strategic plan. This would help each institution align themselves to set targets while also allowing them to monitor and benchmark their performance over the years, while also allowing them to benchmark against peer institutions.
- Future studies in this field should look at expanding the sample size so as to include a diverse range (in terms of size, location, etc.) of universities and municipalities in order to examine the degree of cohesion within their cohort.